



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,131	08/28/2003	Kiyoji Mingishi	59558.00019	5529

32294 7590 01/25/2006

SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER

LEWIS, TISHA D

ART UNIT PAPER NUMBER

3681

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/650,131	Applicant(s) MINGISHI ET AL.	
	Examiner TISHA D. LEWIS	Art Unit 3681	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-45 is/are pending in the application.
- 4a) Of the above claim(s) 6-10, 13, 14, 19-26, 33-36, 38 and 40-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 15-18, 32, 37 and 39 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 11, 12 and 27-31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

The following is a response to the amendment received on November 14, 2005 which has been entered.

#### ***Response to Amendment***

Claims 1 and 3-45 are pending in the application. Claim 2 is cancelled. Claims 6-10, 13, 14, 19-26, 33-36, 38 and 40-45 are withdrawn.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 15, 16, 18, 32, 37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukaya ('883). As to claims 1 and 39, Fukaya discloses a transmission having an input shaft (41), an output shaft (53), a plurality of planetary mechanisms having an external (43) and internal (46) gear with a slight difference in teeth by one, being parallel to each other and having different transmission power characteristics wherein the speed of the second mechanism is slower than the speed of the first mechanism (speed of second is lowered again after speed of first is lowered). Fukaya discloses at least one of a rotational resistance due to the second mechanism being lowered in speed by the first mechanism or backlash and a plurality of power transmissible routes through the shared members due to the input to output of the

transmission being used as a speed reducer and reversed to be a speed increaser (column 8, lines 8-13).

As to claim 5, Fukaya discloses pins (45<sub>1</sub>) having a different sliding manner from pins (45<sub>2</sub>) due to the lowered speed of the second mechanism.

As to claims 15 and 37, Fukaya discloses eccentrics (50<sub>1</sub> and 50<sub>2</sub>) used to oscillate the external gear which is different in sliding manner due to the lowered speed of the second mechanism.

As to claims 18 and 32, Fukaya discloses a different number of teeth between the internal and external gear which can cause a difference in meshing between the two mechanism.

Claims 1, 5, 15, 16-18, 32, 37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Minegishi et al ('747). As to claims 1 and 39, Minegishi et al discloses a transmission having an input shaft (510), an output shaft (520), a plurality of planetary mechanisms having an external (576) and internal (506) gear with a slight difference in teeth by one, being parallel to each other and having different transmission power characteristics wherein the external gear of the first planetary mechanism and the external gear of the second planetary mechanism engage different sides of the internal gears of the mechanisms (576A engage top of internal gear 506 while 576B engage bottom of gear 506). Minegishi et al discloses the first mechanism having at least one of rotational resistance due to the second mechanism being lowered in speed by the first mechanism or high rigidity and a plurality of power transmissible routes

through the shared members due to the input to output of the transmission being used as a speed reducer and reversed to speedup reduction.

As to claims 5, 15 and 37, Minegishi et al discloses eccentrics (570A and 570B) used to oscillate the external gear which is different in sliding manner due to the lowered speed of the second mechanism.

As to claim 16, Minegishi et al discloses an inner pin hole (578A and 578B) formed in the external gear and inner pins (540) fitted into the holes wherein the pins rotate faster than the holes during operation due to the input speed from the motor.

As to claim 17, Minegishi et al discloses the internal gear having circular grooves for receiving outer pins (580) wherein the outer pins rotate faster than the circular grooves.

As to claims 18 and 32, Minegishi et al discloses a different number of teeth between the internal and external gear which can cause a difference in meshing between the two mechanism.

#### ***Allowable Subject Matter***

Claims 3, 4, 11, 12 and 27-31 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive. As to applicant's argument that the Fukaya reference lacks a plurality of transmissible

routes: As disclosed in the rejection Fukaya does disclose that the transmission can be reversed which suggest two power paths through the same members.

As to applicant's argument that Fukaya lacks the mechanisms being disposed in parallel: Figure 6 of Fukaya discloses the mechanisms being disposed in parallel.

As to applicant's argument that Fukaya lacks at least one of rotational resistance, rigidity and backlash: The limitation "at least one" suggest that only one of the characteristics need to be met by the references wherein Fukaya does disclose reducing backlash of the rotation system.

As to applicant's argument that the Minegishi reference lacks at least one of rotational resistance, rigidity and backlash: The limitation "at least one" suggest that only one of the characteristics need to be met by the references wherein Minegishi does disclose high rigidity of the rotation system.

### FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 872-9326 before final and 703-872-9327 after final**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to  
the Patent and Trademark Office (Fax No. (703) 000-0000) on \_\_\_\_\_

Typed or printed name of person signing this certificate:

(Date)

---

---

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 571-272-7093. The examiner can normally be reached on M-Thur 6 AM TO 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tdl  
January 22, 2006

  
TISHA LEWIS  
PRIMARY EXAMINER  
AU 3681 1/22/06